

## CHEMICALLY SYNTHESIZED haFGF GENE AND CORRESPONDING AMINO ACID SEQUENCE

*FIG. 1*

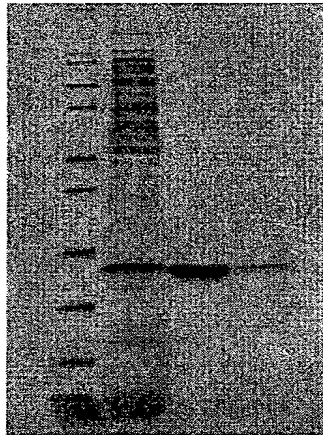




**FIG. 3**

## HPLC PURIFIED FGF155(8-23-00)

1 2 3

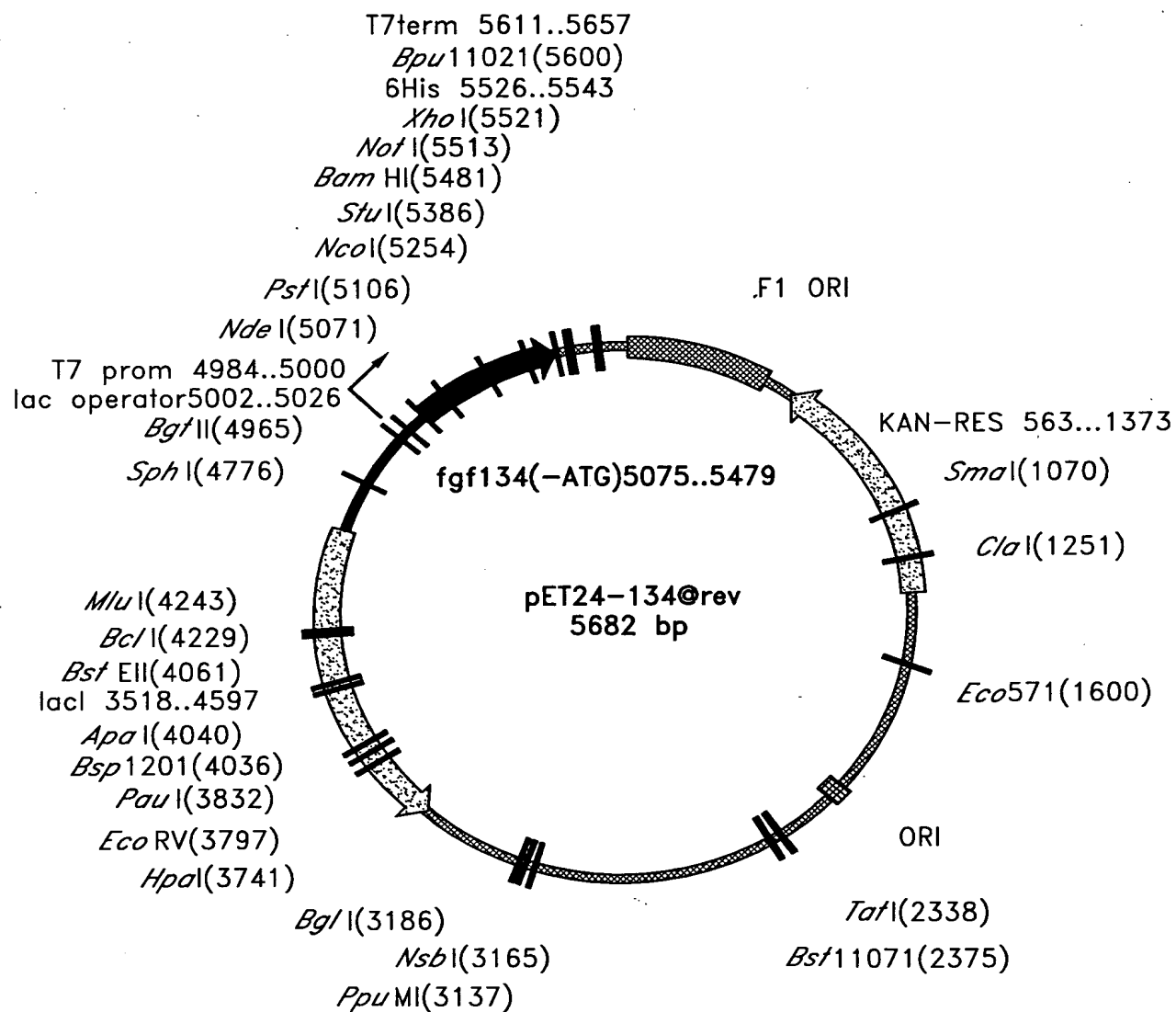


LANE1: 10 $\mu$ l OF CONDITIONED MEDIUM

2: 7 $\mu$ l OF HEPARIN-SEPHAROSE PURIFIED(0.45 $\mu$ g / $\mu$ l)

3: 14 $\mu$ l OUT OF 80 $\mu$ l OF HPLC-PURIFIED

FIG.4



**FIG.5**

NUCLEOTIDE AND AMINO ACID SEQUENCE FOR CHEMICALLY  
SYNTHESIZED HUMAN A FGF (134 AMINO ACIDS)

**FIG. 6**



NUCLEOTIDE AND AMINO ACID SEQUENCE FOR CHEMICALLY  
SYNTHESIZED HUMAN A FGF (140 AMINO ACIDS)

**FIG. 8**



9/12

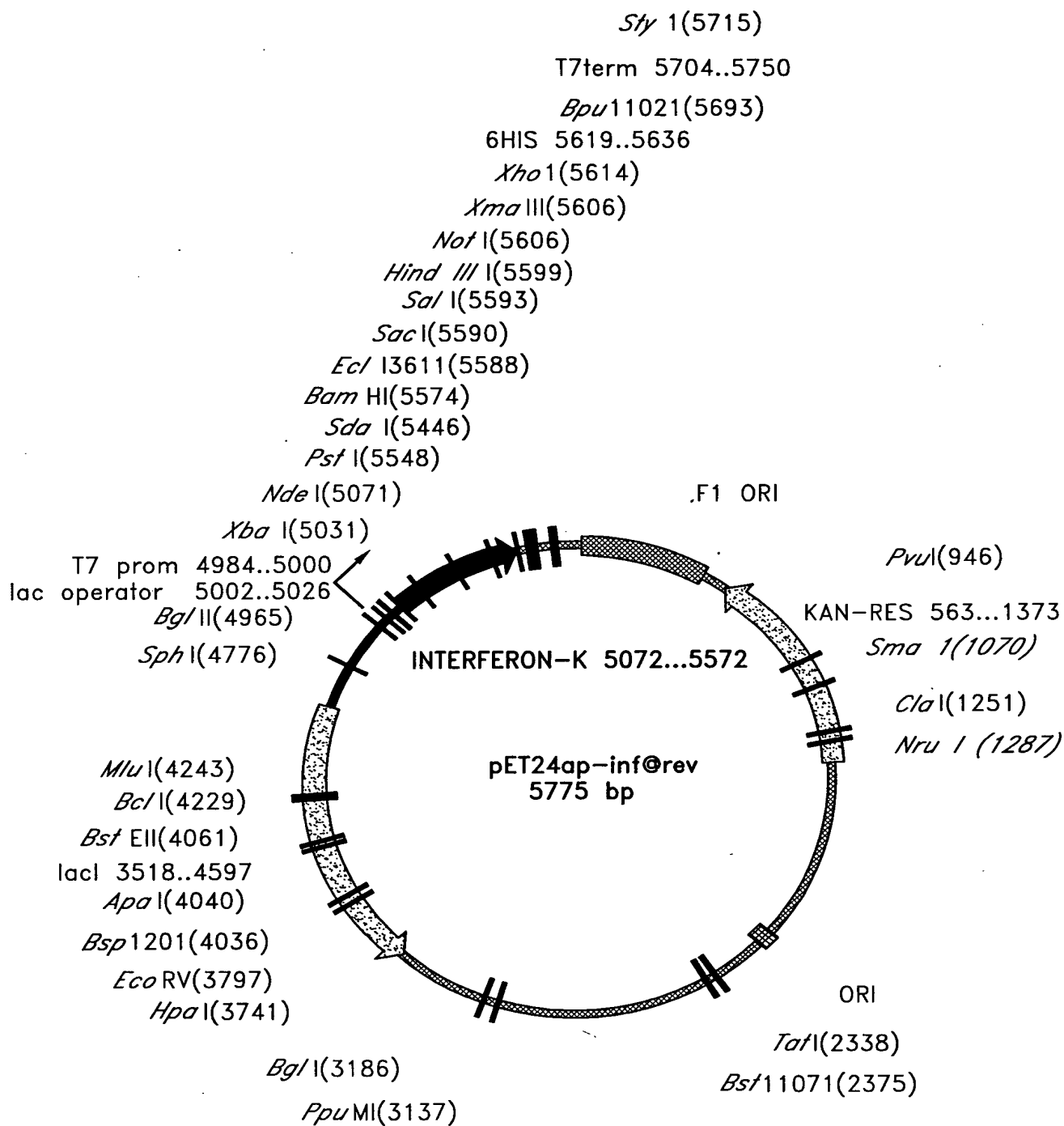


FIG. 9

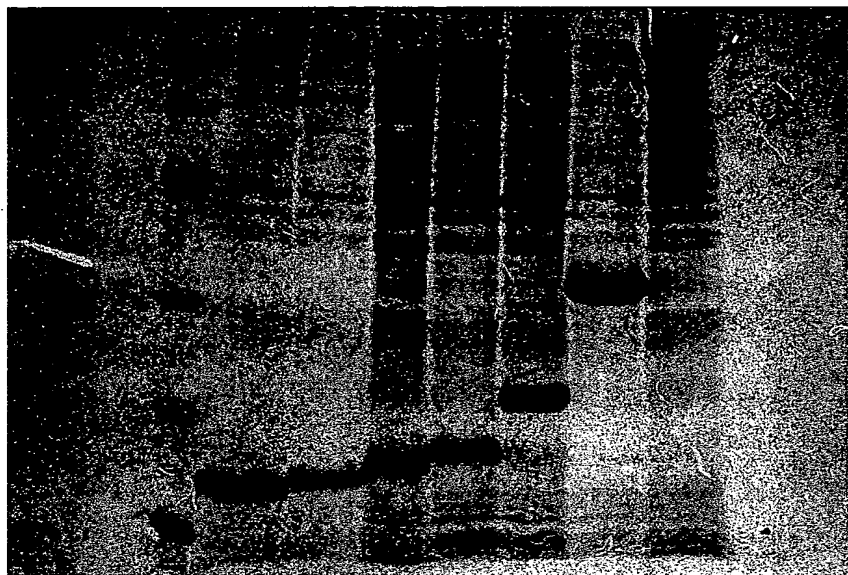
10/12

		BpiI	
2971	GGGCGCTGACTTCCGCGTTTCCAGACTTTACGAAACACGGAAACC CCCGCGACTGAAGGCGCAAAGGTCTGAAATGCTTTGTGCCTTTGG	GAAGACCATTTCATGTTGTTGCTCAGGTCGAGACGTTTTGCAGCA CTTCTGGTAAGTACAACAACGAGTCCAGCGTCTGCAAAACGTCGT	
		PpuMI	
		EcoO109I	
		DraII	
		AvaII	
3061	GCACTCGCTTCACGTTTCGCTCGGTATCGGTGATTCTCTGCTA CGTCAGCGAAGTGCAAGCGAGCGCATAGCCACTAAGTAAGACGAT	ACCAGTAAGGCAACCCCGCCAGCCTAGCCGGGTCTCAACGACAG TGGTCATTCCGTTGGGGCGGTCCGATCGGCCAGGAGTTGCTGTC	
		BsaBI	
		NsbI	
		BglII	
		VspI	
		BfmI	
		MbiI	
3151	GAGCAGCATCATGCGCACCCGTGGGGCCGCCAGATCTCGATCCCG CTCGTGCTAGTACGCGTGGGCACCCCGCGGTCTAGAGCTAGGGC	CGAAATTAATACGACTCACTATAGCGGAATTGTGAGCGGATAACA GCTTTAATTATGCTGAGTGATATCCCTTAACACTCGCCTATTGT	
		promotor	
		operator	
+2		MetAlaGluGlyGluIleThrThrPheThrAlaLeuThrGl	
		HpaI	
		HindII	
		HincII	
		XbaI	
		NdeI	
		Eco57I	
3241	ATTCCCTCTAGAAATAATTTTGTTTAACTTTAAGAAGGAGATAT TAAGGGGAGATCTTTATTAACAAATTGAAATTCTTCTCTATA	ACATATGGCTGAAGGGGAAATCACCACCTTTACAGCGTTAACGGA TGTATACCGACTTCCCTTTAGTGGTGAATGTGCGAATTGCCT	
+2	uLysPheAsnLeuProProGlyAsnTyrLysLysProLysLeuLeu	TyrCysSerAsnGlyGlyHisPheLeuArgIleLeuProAspGl	
		SmaI	
		PstI	
		AvaI	
		HindIII	
		BfmI	
		EcoRI	
3331	GAAATTTAACCTTCCGCCCGGGAATTACAAAAACCCAGCTTCT CTTTAAATTGGAAGCGGGCCCTTAATGTTTTTGGGTTCGAAGA	TTACTGCAGTAACGGAGGACACTTCTCGGAATTCTGCCAGATGG AATGACGTCATTGCCTCCTGTGAAGGACGCTTAAGACGGTCTACC	
+2	yThrValAspGlyThrArgAspArgSerAspGlnHisIleGlnLeu	GlnLeuSerAlaGluSerValGlyGluValTyrIleLysSerTh	
		SalI	
		HindII	
		HincII	
		PvuI	
		XmaIII	
		NruI	
		PvuII	
		CfrI	
3421	CACAGTAGATGGGACTCGCGATCGCTCCGACCAGCACATTACGCT GTGTCATCTACCCTGAGCGCTAGCGAGGCTGGTCTGTAAGTCGA	GCAACTCTCGGCCGAAAGCGTTGGAGAGGTCTATATCAAGTCGAC CGTTGAGAGCCGGCTTCGCAACCTCTCCAGATATAGTTCAGCTG	
+2	rGluThrGlyGlnTyrLeuAlaMetAspThrAspGlyLeuLeuTyr	GlySerGlnThrProAsnGluGluCysLeuPheLeuGluArgLe	
		MlsI	
		RsaI	
		StyI	
		CfrI	
		Csp6I	
		NcoI	
		AcyI	
		MvaI269I	
		XbaI	
3511	GGAGACTGGCCAGTACCTTGCCATGGACACCGATGGGCTTCTGTA CCTCTGACCGGTCATGGAACGGTACCTGTGGTACCCGAAGACAT	TGGCTCACAGACGCCTAACGAAGAATGCTTGTCTTAGAAAGACT ACCGAGTGTCTGCGGATTGCTTCTTACGAACAAAGATCTTTCTGA	
		BsmAI	

NUCLEOTIDE AND AMINO ACID SEQUENCE FOR CHEMICALLY  
SYNTHESIZED INTERFERON $\alpha$ -2B

FIG. 10

11/12



1 2 3 4 5 6 7 8

ELECTROPHOREGRAMM

1-MOLECULAR WEIGHT KIT(94 000,67 000,43 000,30 000  
20 100, 14 400)

THE CULTURAL MEDIUM, CONTAINING:

2-haFGF 134(40 $\mu$  l OF THE CULTURAL MEDIUM)

3-haFGF 140(40 $\mu$  l OF THE CULTURAL MEDIUM)

4-IFN $\alpha$ 2B(40 $\mu$  l OF THE CULTURAL MEDIUM)

5-haFGF 155(40 $\mu$  l OF THE CULTURAL MEDIUM)

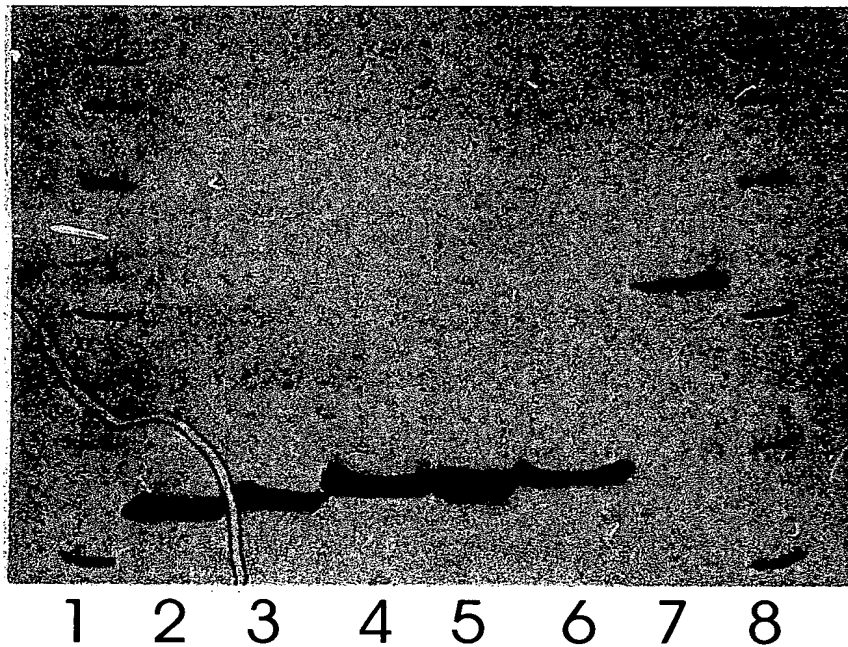
6-HGH(40 $\mu$  l OF THE CULTURAL MEDIUM)

7-MAP(40 $\mu$  l OF THE CULTURAL MEDIUM)

8- $\beta$ -GALACTOSIDASE OF E. COLI(40 $\mu$  l OF THE CULTURAL MEDIUM)

FIG.11

105180 81662660



ELECTROPHOREGRAMM OF THE PURIFIED PRODUCTS:

1-MOLECULAR WEIGHT KIT (94 000, 67 000, 43 000, 30 000, 20 100, 14 400)

2-haFGF 134

3-haFGF 140

4-haFGF 146

5-IFN  $\alpha$  2b

6-haFGF 155

7-MAP

## 8-MOLECULAR WEIGHT KIT

FIG. 12